


Antidegradation

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- What do the antidegradation regulations require?
 - What are the levels of protection?
 - What are the elements of an antidegradation review?
 - Examples
 - Words to the wise

Background

Water Quality Standards consist of:

DESIGNATED USES:
management objectives for surface waters, e.g., protection and propagation of aquatic life and recreation in and on the water



CRITERIA: numeric values and/or narrative statements that represent a level of water quality that supports the designated uses

ANTIDEGRADATION POLICY AND PROCEDURES: to maintain and protect existing water quality

Antidegradation and the WQS Program



High Quality Waters

Water Quality

Antidegradation
review process



CWA 101(a) goals

↑
Designated Uses
and Criteria



Antidegradation Requirements (40 CFR 131.12)

- ❖ States and authorized Tribes must develop and adopt a statewide antidegradation policy to protect:
 - ◆ existing in-stream uses for all waters of the U.S.;
 - ◆ high quality waters (water quality that is better than the levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the waters (i.e., CWA 101(a) goals)); and
 - ◆ Outstanding National Resource Waters (ONRWs) designated by the state.

Antidegradation Requirements (40 CFR 131.12)

- ❖ States and authorized Tribes must also identify implementation methods. They can be:
 - ◆ part of their policy regulations, or
 - ◆ in other documents, such as a guidance directive
- ❖ Implementation methods should describe
 - ◆ how high quality waters will be identified
 - ◆ what activities will trigger an antidegradation review
 - ◆ the components of the antidegradation review process

Policy vs. Implementation

invented example – demonstration purposes only!

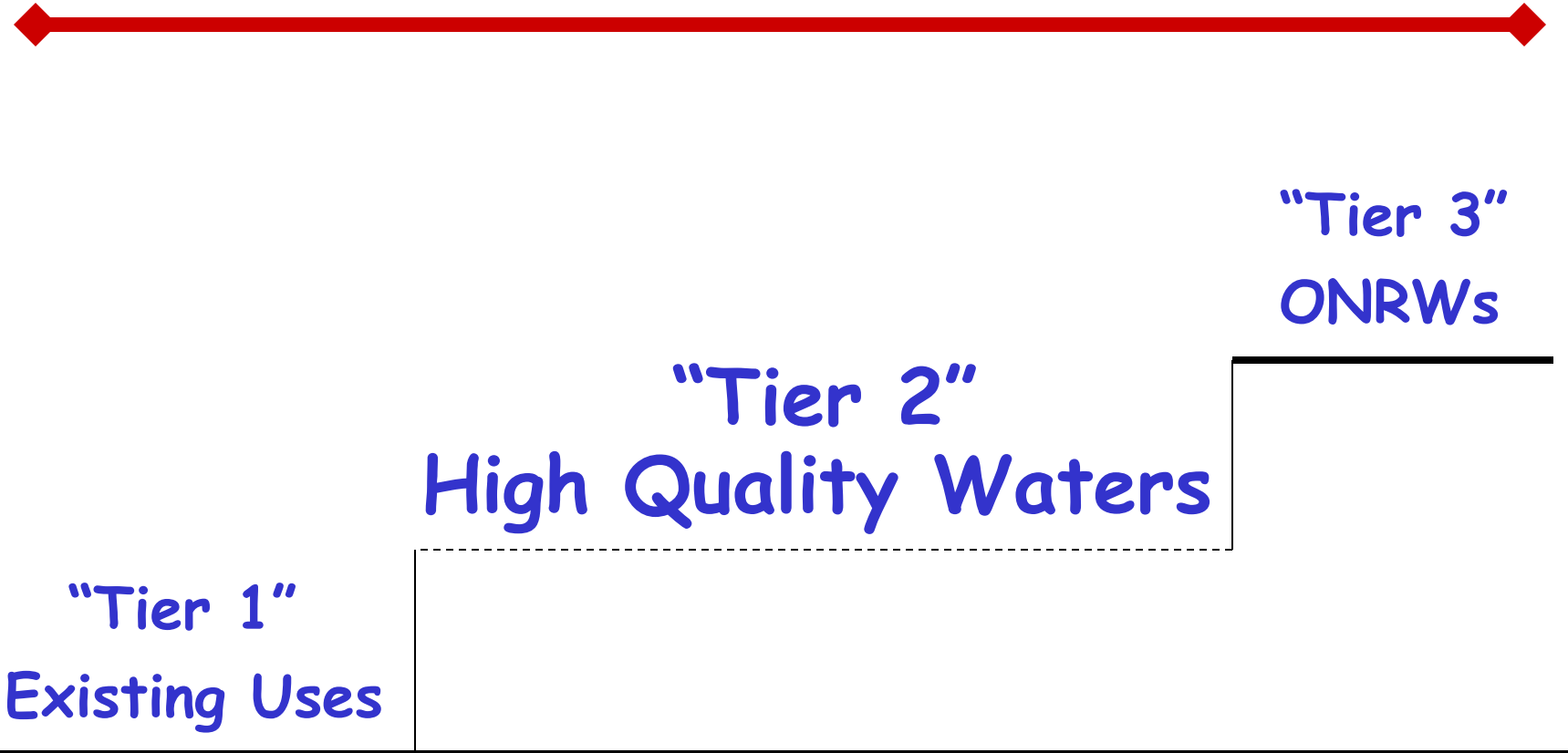
❖ A state's Policy might say something like this:

“Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected.”

❖ Their implementation methods could then say something like:

- ◆ Which waters in the state are high quality waters
- ◆ Forms for a permit applicant to submit to provide details on alternatives to the discharge that were considered
- ◆ Description of how the public will be involved in decisions about how high water quality will be protected

The 3 "Tiers" of Antidegradation Protection (40 CFR 131.12)



Two Ways to Identify High Quality (Tier 2) Waters

❖ “Waterbody-by-Waterbody”

- ◆ State/Tribe Tiers its water bodies upfront
- ◆ Tiering is based on characteristics observed using biological, chemical and/or aesthetic quality information
- ◆ Each water body is classified as one Tier only

❖ “Parameter-by-Parameter”

- ◆ State/Tribe determines Tier on a case-by-case basis
- ◆ Determination of whether water quality is better than the criterion for specific parameters of concern using chemical or biological data.
- ◆ A water body can be Tiered differently for parameters

Existing Uses ("Tier 1")

- ❖ "Tier 1" protection is the baseline of protection for all waters of the U.S.
- ◆ For waters in Tier 1: Existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected.
- ◆ For waters in Tiers 2, 3: Existing uses generally reflect CWA 101(a) goals already achieved. These waters also have additional protections; protection of existing uses is the baseline of protection.

Outstanding National Resource Waters (ONRWS, "Tier 3")

- ❖ "Tier 3" protection for Outstanding National Resource Waters (ONRWs) is the most stringent level of protection.
- ❖ What are ONRWs?
 - ◆ A State/Tribe identifies its own ONRWs
 - ◆ A State/Tribe can classify any water body as an ONRW
 - ◆ List typically includes National Parks, waters of exceptional recreational or ecological significance
- ❖ What does Tier 3 protection mean?
 - ◆ No degradation is allowed in ONRWs, except on a short term or temporary basis if allowed by the State/Tribe's policy and procedures

Outstanding National Resource Waters (ONRWS, "Tier 3")



High Quality Waters ("Tier 2")

- ❖ For water bodies where water quality exceeds the CWA 101(a) goals, that quality shall be maintained and protected.
- ❖ High water quality may be lowered only if State/Tribe finds lowering to be "necessary to accommodate important economic or social development."
- ❖ Tier 2 antidegradation review is the process through which a State/Tribe makes an informed choice about a proposed activity that would lower water quality.

Antidegradation Review Process

- ◆ Identify the high water quality in question
- ◆ Alternatives analysis: is degradation “necessary”?
- ◆ Social / economic analysis: is the activity “important”?
- ◆ Protect existing uses (Tier 1 protection)
- ◆ Assure achievement of the highest statutory and regulatory requirements for point sources
- ◆ Assure implementation of cost-effective and reasonable Best Management Practices (BMPs) for non-point sources
- ◆ Coordinate with intergovernmental entities
- ◆ Complete public participation process
- ❖ Only after this process can State/Tribe make a determination on whether to grant the request for the proposed activity.

Antidegradation Review

invented example

Heather's Beautiful Lake
existing WQ $20 \mu\text{g/L Zn}$



Tom's Widget Factory
proposed discharge
predicted to bring Zn
levels to $50 \mu\text{g/L}$

Aquatic Life Criterion for Zn
 $120 \mu\text{g/L}$ (acute and chronic)

Antidegradation Review

invented example



Identify the high WQ
Alternatives analysis
Social/economic analysis

Existing uses?
Point sources?
Nonpoint sources?

Intergovernmental coord.
Public participation

then...
State determination

State example: Arizona

- ❖ **POLICY** includes: Three-tiered system parallel to 131.12
 - ◆ Tier 1- existing uses protection
 - ◆ Tier 2- high quality water identified parameter-by-parameter
 - ◆ Tier 3- ONRWs
- ❖ **IMPLEMENTATION METHODS** include:
 - ◆ List of information permit/license applicant must submit to the State or Tribe for the antidegradation analysis
 - ◆ Worksheet for State or Tribe staff on the steps of antidegradation analysis for each of the three Tiers
 - ◆ Instructions to the public on how to nominate waters as ONRWs

State example: Ohio

- ❖ **POLICY** includes: Many-tiered system different from 131.12
 - ◆ Limited Quality Waters (Tier 1) – existing uses protection
 - ◆ High Quality Waters (Tier 2) identified waterbody-by-waterbody
 - ✍ General High Quality Waters (default)
 - ✍ Superior High Quality Waters
 - ✍ Lake Erie
 - ✍ Outstanding State Waters
 - ◆ ONRWs (Tier 3)
- ❖ **IMPLEMENTATION METHODS** include:
 - ◆ Detailed public involvement process – notice, factsheet, hearing
 - ◆ Detailed worksheets on alternatives analysis for applicant to demonstrate the non-degradation, minimal degradation and mitigative technique alternatives considered

"Tier 2.5"

Tier 2

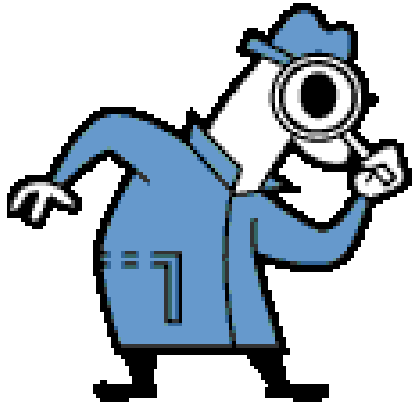


Tier 2.5



EPA Review

❖ When a State/Tribe submits a policy for approval, EPA considers:



◆ Policy

- ✍ Is it consistent with §131.12(a)(1)-(4)?
- ✍ Are existing uses, high quality waters and ONRWs protected?

◆ Implementation methods

- ✍ Are they clearly identified?
- ✍ Are they consistent with §131.12(a)(1)-(4)?
- ✍ Are they consistent with State's own policy?

Words to the wise...

- ❖ 'Elevator speech': Antidegradation provides a decision-making process for determining how and how much to protect high quality waters, and a framework for protecting existing uses and Outstanding National Resource Waters.
- ❖ If your state, tribe or territory is developing or changing antidegradation policy or implementation methods...
 - ◆ Discuss questions with your EPA Regional office early on
 - ◆ Provide ample evidence, data, and analysis to support the policy and/or implementation package

Review Question #1

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- ❖ True or False. Antidegradation policies and implementation methods address both point and nonpoint sources of pollution.

Review Question #1

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- ❖ True or False. Antidegradation policies and implementation methods address both point and nonpoint sources of pollution.

 - ❖ Answers:
 - ◆ True. Antidegradation policies and implementation methods address both point and nonpoint sources of pollution.

Review Question #2

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- ❖ True or False. The antidegradation policy allows existing uses to be impaired by lowering water quality standards.

Review Question #2

❖ True or False. The antidegradation policy allows existing uses to be impaired by lowering water quality standards.

❖ Answer:

◆ *False. 40 CFR 131.12(a)(1) requires that existing uses are properly maintained.*

Review Question #3

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- ❖ True or False. Outstanding National Resource Waters can include swamps or hot springs.

Review Question #3

❖ True or False. Outstanding National Resource Waters can include swamps or hot springs.

❖ Answer:

◆ *True. ONRWs are designated as such by the States and authorized Indian Tribes. EPA encourages inclusion of all waters of exceptional recreational or ecological significance as outlined in 40 CFR131.12(a)(3).*

Review Question #4

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- ❖ True or False. The regulations pertaining to antidegradation policies state that economic development cannot be the basis for the lowering of water quality.

Review Question #4

- ❖ True or False. The regulations pertaining to antidegradation policies state that economic development cannot be the basis for the lowering of water quality.
- ❖ Answer:
 - ◆ False. 40 CFR 131.12(a)(2) allows for the lowering of water quality that exceeds levels needed to support propagation of fish, shellfish, and wildlife and recreation in and on the water, when necessary to accommodate important economic or social development in the area of the waters if:
 - ✍ existing uses are not impaired,
 - ✍ required intergovernmental coordination and public participation procedures are followed, and,
 - ✍ the State or authorized Indian Tribe has ensured the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

Review Question #5

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- ❖ True or False. EPA has the authority to promulgate an antidegradation policy for a State or authorized Indian Tribe.

Review Question #5

❖ True or False. EPA has the authority to promulgate an antidegradation policy for a State or authorized Indian Tribe.

❖ Answer:

◆ *True. If a State's or authorized Indian Tribe's antidegradation policy does not meet Federal requirements, EPA has the authority to promulgate the policy pursuant to section 303©(4) of the Clean Water Act.*

Review Question #6

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- ❖ True or False. A State's or Tribe's antidegradation policy must be identical to EPA's policy outlined in 40 CFR131.12.

Review Question #6

❖ True or False. A State's or Tribe's antidegradation policy must be identical to EPA's policy outlined in 40 CFR131.12.

❖ Answer:

◆ *False. At a minimum, the State's or Tribe's antidegradation policy must be consistent with section 131.12. However, States and authorized Indian Tribes may develop antidegradation policies that are more protective than the Federal policy.*